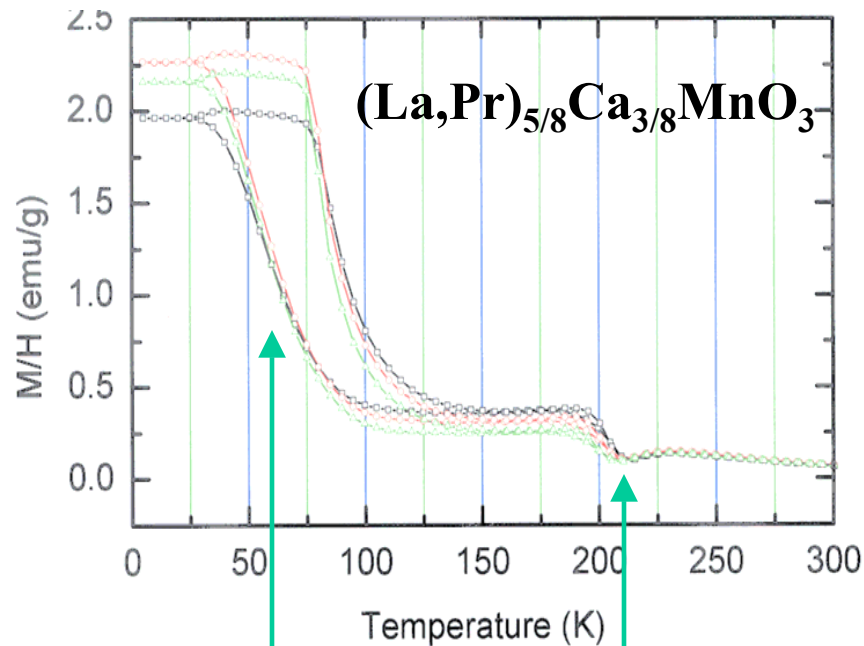


Mesoscopic landscape of ferromagnetic manganites

New state of matter with nano-structures ! DMR-0103858

**Fresnel-mode Lorentz TEM images
of a novel ferromagnet**



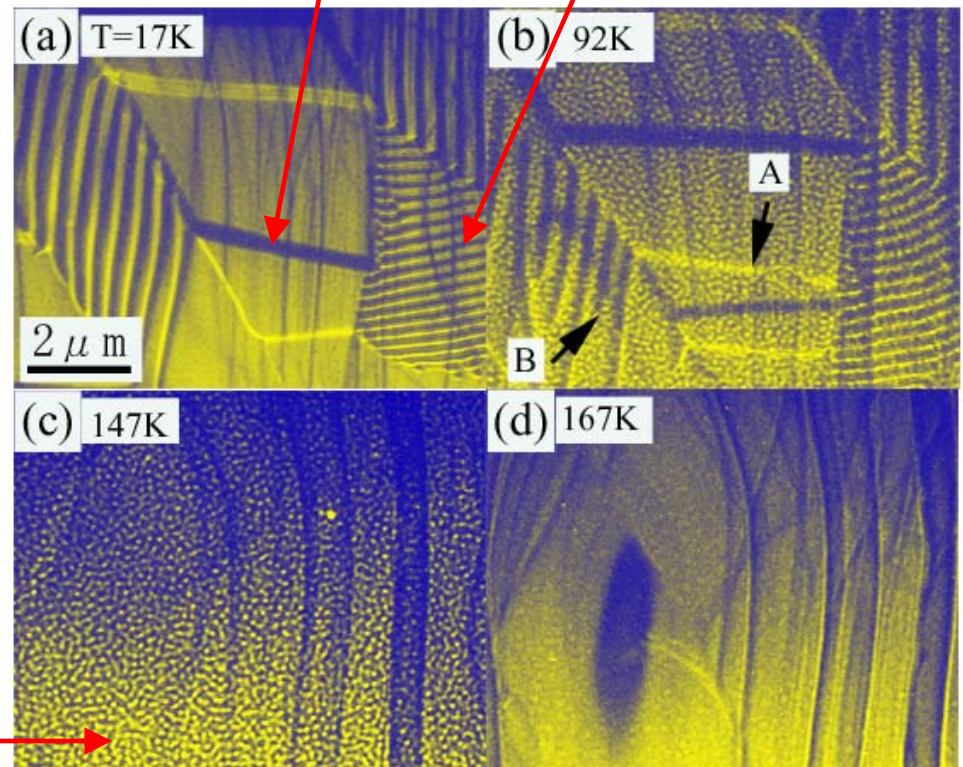
T_c

**Magnetic
Burns temp.**

FM nano-droplets

**Regular FM
domains**

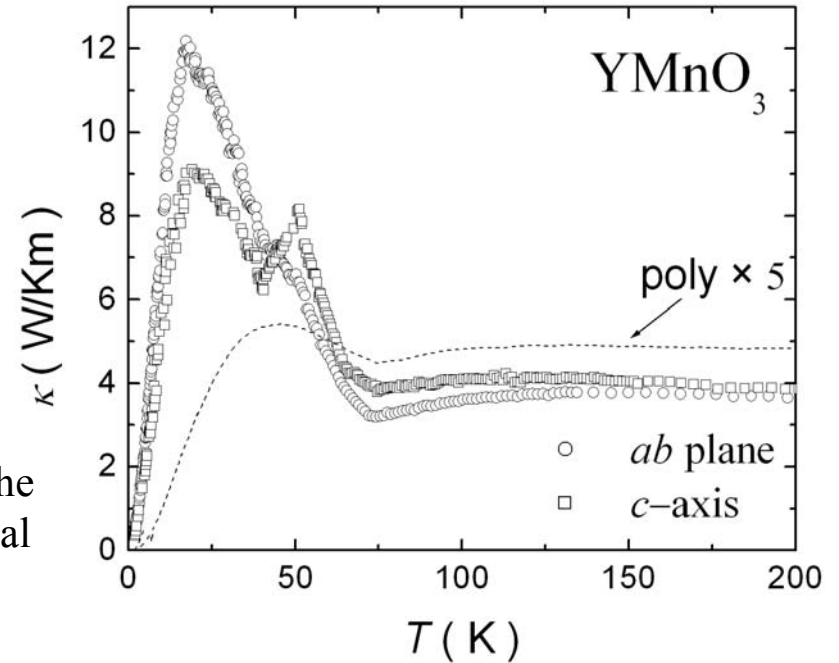
**Stripe FM
domains**



Education & inter-institutional collaboration.



Upper: Derya Yinanc, an undergraduate student in the undergraduate honor's program, is measuring thermal conductivity. Right: κ data by Yinanc on magnetic/ferroelectric YMnO_3 are shown.



High school student (Leo Barinov) in the Partners in Science Program (sponsored by Liberty Science Center, New Jersey) and an undergraduate student (Derya Yinanc) in the undergraduate honor's program at Rutgers have studied (thermal-)transport properties of materials with simultaneous magnetism and ferroelectricity. In addition, undergraduate students (Michael Deleon and Zhiqian Chen) at New Jersey Institute of Technologies (supervised by Trevor Tyson) are involved in collaborative experiments at Rutgers.